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Year XIII January, 1939 No. 1

INTERNATIONAL INSTITUTE OF AGRICULTURE

INTERNATIONAL BULLETIN OF PLANT PROTECTION

PUBLISHED MONTHLY

IMPERIAL MYCOLOGICAL INSTITUTE 3 FEB. 1939

REPRINT FROM THE 'INTERNATIONAL REVIEW OF AGRICULTURE'

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ROME
VILLA UMBERTO I
1939

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INTERNATIONAL INSTITUTE OF AGRICULTURE

PLANT PROTECTION SECTION

Chief of Section: Professor Dr. GIULIO TRINCHIERI.
Redactor: Dr. NORBERT VON GESCHER.

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ROME — PRINTING OFFICE ' CARLO COLOMBO.'

CHRONICLE OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE

The radio communiques of the International Institute of Agriculture will be transmitted between 2.45 and 2.52 p. m. on the following days: Thursday, English ***and*** German; ***Friday,*** Spanish; ***Tuesday,*** Italian ***and*** French.

They will be broadcast from Rome II (245.5 m.) and Rome 2 RO 4 (25.4 m.).

The hour of broadcasts is in Central European Time, which is one hour ahead of Greenwich Mean Time, and 6 hours ahead of Eastern Standard Time in the United States.

International meeting on Horticultural Statistics. — A meeting of an International Commission on Horticultural Statistics was held at the International Institute of Agriculture from December 1 to 3. The Commission was composed of delegates from the following countries: Germany, United States, France, Italy, Netherlands, United Kingdom and Czechoslovakia.

The Commission considered the work of the Sub-Committee on Food Statistics set up by the Mixed Committee on the Problem of Nutrition and, in the second place, the work of the International Conference of Agricultural Statisticians on the drafting of the programme for the World Agricultural Census, 1940.

On the basis of the documents submitted, at the request of the International Institute of Agriculture, by the countries represented at the meeting and also by Hungary and Algeria, the Commission studied certain methodological and technical problems connected with vegetable and fruit statistics.

On certain points the Commission arrived at conclusions which were clear enough to permit of the formulation of resolutions and recommendations. On other points, however, the exchange of views did not lead to such well-defined conclusions; it was possible, nevertheless, to present the questions in their various aspects and to define them clearly; progress has therefore been made towards a solution of the problems, if not on the international plane, at least within the framework of national statistics and towards a progressive improvement of the latter.

The results of the meeting will be summed up in a report to be submitted by the Commission to the next meeting of the Permanent Committee of the International Institute of Agriculture.

Agricultural Cinemas. — In pursuance of the decision of the XIVth General Assembly to " make a detailed study of practical methods for promoting the exchange of agricultural films between the various countries, and in particular for publishing a periodic list of films as suggested by the participating Governments "... the International Institute of Agriculture has sent a questionnaire to the different coun-

tries. Several Governments have already replied to this questionnaire and it is expected that shortly it will be possible to publish a fairly complete first list of such films.

The organization of an International Exhibition of Agricultural Films to take place on the occasion of the XV General Assembly of the Institute in May 1940 is also contemplated.

Control of exports and imports of plants and other vegetal products. — In pursuance of a resolution adopted by the World Monetary and Economic Conference (London 1933), the International Institute of Agriculture has convened at Rome on March 2 next a meeting of a small Commission of experts to discuss scientific and technical questions relating to the control of imports and exports of plants and other vegetal products. The Institute will submit the general principles arising out of this discussion to the various Governments so that they may be taken into account in the drafting of regulations.

BOOKS PRESENTED TO THE LIBRARY OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE

Allemagne. Reichsnährstand, Milchleistungsprüfung und Zuchtwahl. Vorträge auf der Tierzuchttagung anlässlich der 4. Reichsnährstands-Ausstellung, München 1937. Berlin, [1938]. 80 p. (Vorträge des Reichsnährstandes, Bd. 3).

Annuaire sucrier 1939 (Campagne 1938-1939). 65ème année de publication. Paris, Bureaux du Journal des fabricants de sucre, [1938]. 704 p.

Annuario dell'industria italiana dei vini, liquori e affini. Milano, « Aracne », 1938. 454 p.

American society for horticultural science. Proceedings of the American society for horticultural science for 1936, 1937. 33rd Annual meeting, Atlantic City, New Jersey, Dec. 29-31 1936. v. 34. 34th Annual meeting, Indianapolis, Indiana, Dec. 28-30 1937. v. 35. Geneva, N. Y., 1937, 1938. 2 v.

Assemblée permanente des présidents des chambres d'agriculture. Session ordinaire des 31 mai-1er juin 1938. Compte rendu. Poitiers, Renault & Cie., 1938. 511 p.

Brugsforenings-statistik 1937. 10. Beretning. [København], Faellesforeningen for Danmarks brugsforeninger, 1938. 151 p. [Statistics of consumers' co-opetives].

Chinese cotton statistics association, Shanghai. Cotton production in China 1936-37. Shanghai, [1937]. 110 p.

Condurso, G. Il tabacco e l'Agro di Caserta. Napoli, Rispoli, [1938]. 95 p.

1er Congrès international des engrais chimiques. Rome 3-6 octobre 1938. Rapports généraux. Rome, Fédération internationale des techniciens agronomes, [1938]. 360 p.

INTERNATIONAL BULLETIN
OF PLANT PROTECTION

1939 No. 1

DISCOVERIES AND CURRENT EVENTS *

Germany: Further Records of the Colorado Beetle (*Leptinotarsa decemlineata*) in 1938 †

During the period from July 1 to October 13, 1938, the Colorado beetle was again reported in 1695 communes in the western area of the Reich.

The beetle was reported for the first time in the following 73 districts: Untertaunus (46 communes), Unterlahn (26 communes), Ahrweiler (25 communes), Kochen (23 communes), St. Goarshausen and Schleiden (each 20 communes), Dieburg (16 communes), Gross-Gerau (13 communes), Kirchheimbolanden and Limburg (each 12 communes), Wetzlar (10 communes), Oberlahn (9 communes), Main-Taunus, Neuenburg, Neustadt a. d. W. and Unterwesterwald (each 8 communes), Offenbach, Oppenheim and Usingen (each 7 communes), Dillkreis, Friedberg and Lahr (each 5 communes), Darmstadt and Oberbergischer Kreis (each 4 communes), Alzenau, Aschaffenburg, Frankfurt, Lohr, Oberndorf, Obertaunus, Oberwesterwald, Schotten and Siegen (each 3 communes), Biedenkopf, Calw, Erkelenz, Gelnhausen, Grevenbroich, Cologne, Leonberg, Nagold, Olpe, Ravensburg, Rottweil, Stockach and Wittgenstein (each 2 communes), Altena, Altenkirchen, Arnsberg, Baden-Baden, Backnang, Böblingen, Büdingen, Ehingen, Essen, Hechingen, Heilbronn, Kempen, Krefeld, Mainz, Marktheidenfeld, Maulbronn, Meschede, Mosbach, Mörs, Pforzheim, Rees, Rheydt, Schwäbisch-Gmünd, Sigmaringen, Tuttlingen, Überlingen and Wattenscheid (each 1 commune).

For records previously made in other parts of Germany, see this *Bulletin*, 1938, No. 8, p. 169, No. 10, p. 213, and No. 11, p. 241.

Belgium: The Colorado Beetle in 1938 §

The year 1938 was marked by a notable increase in the number of foci of *Leptinotarsa decemlineata* and by a northward extension of the areas attacked by the Colorado beetle.

While in 1937 the Colorado beetle was reported in 17 communes with 39 foci, in 1938 more than 1200 communes were attacked by this pest.

* Under this and the next heading the countries are arranged in French alphabetical order.

† Commuication from the Biologische Reichsanstalt für Land- und Forstwirtschaft, Berlin-Dahlem, official correspondent of the Institute.

§ Communication from Prof. R. MAYNÉ, Director of the State Entomological Station, Gembloux, transmitted by the official correspondent of the Institute, Prof. E. MARCHAL, Director of the State Phytopathological Station, Gembloux, Belgium.

The rapid spread of the insect over Belgian territory, coinciding with serious infestations in other European countries, is due to the mass flight of insects from the south; these insects settled in swarms in Belgium and even further north, creating new foci. The latter were scattered throughout the country as follows:—

Brabant	146	communes affected
West Flanders	188	» »
East Flanders	214	» »
Hainault	313	» »
Liège	33	» »
Luxemburg	114	» »
Namur	150	» »
Antwerp	37	» »
Limburg	38	» »
Total	1233	communes affected

The insects appeared in all communes as more or less considerable localized foci; in several cases only one insect was captured.

The first of the foci was discovered on June 4 at Esplechin, Hainault and the last on October 17 at Stavelot, Liège.

In one instance, the Colorado beetle was discovered on henbane.

Control activities were intensified to meet the new situation.

Surveys were carried out by the schools and by private individuals; treatment was applied under the direction of experts from the Department of Agriculture; labour, equipment and materials were supplied at first and until July, by the Ministry of Agriculture; later the communes took part in the control campaign directly, supplied with material at reduced prices by the Government.

Eritrea: *Locusta migratoria migratorioides* *

During the first ten days of October, 1938, hoppers of *Locusta migratoria migratorioides* were reported from the hottest areas, *i. e.*, the low-lying plains in the west and in the Seraé and Atchelé Guzai plains, sheltered from the cold night winds.

About the middle of the month abundant new hatchings were reported from the entire Hamasien area and from western and eastern Tigrai.

Many large swarms coming from the low-lying plains in the west and flying towards the eastern low-lying plains passed over the high plateaux in the course of the month. Many came from the Kassala area, and the passage of enormous swarms flying towards the interior of Eritrea was reported daily from the Sudan frontier.

In the low-lying plains of the west also, numerous hoppers became fully developed and spread towards the high plateaux. It was found impossible to

* Communication from Dr. LUIGI M. BOLOGNA, Chief of the Agricultural Office of Eritrea, Asmara, transmitted to the Institute by the Government of the Colony.

deal with them in this region, owing to the nature of the land, to the scantiness of the population and to a recrudescence of malaria.

In the hatchings reported from the neighbourhood of Addi Ugri, Addi Quala and Decamerè, the presence of hoppers of the *transiens* phase was frequently observed.

The parasite mentioned in the September report [see this *Bulletin*, 1938, No. 12, p. 265], appears to belong to the genus *Trombidium* (*T. holosericeum* L. ?). The insects carrying this parasite, however, showed no signs of being affected by its presence.

Instances of locusts carrying the *Trombidium* were frequently found in all the swarms from which it was possible to obtain specimens.

Another parasite was reported in the low-lying western plains and in the Schirè. So far it has been impossible to examine any specimens, but from the description given it would appear that this is a fungous parasite, probably *Empusa grylli*.

The crops, which were almost ready for harvesting, were very seriously damaged. Control measures were organized by the political authorities, the work being carried out by experts working under the instructions of the Agricultural Office of the Colony. As hoppers were found in the middle of the crops and poisoned bait did not attract the insects, the work was exceedingly difficult.

Threshing was impossible and fire-throwers were of no avail in arresting the invasion. This system gave excellent results, however, in clearing the railway at Arbaroba and Agat.

To prevent danger to motor traffic from the hopper bands covering the asphalted surface of the principal highways, the roads were sprayed with 3 per cent. solution of sodium arsenite. This method gave good results.

Luxemburg (Grand Duchy of): The Colorado Beetle Situation in 1938 *

In 1938, the Colorado beetle (*Leptinotarsa decemlineata*) was reported in the following districts of the Grand Duchy:—

Luxemburg city area	8	communes	infested	with	10 foci
Luxemburg Canton	14	»	»	»	27 »
Capellen »	18	»	»	»	94 »
Esch »	29	»	»	»	180 »
Mersch »	12	»	»	»	25 »
Echternach »	6	»	»	»	25 »
Grevenmacher »	11	»	»	»	20 »
Remich »	13	»	»	»	25 »
Diekirch »	13	»	»	»	35 »
Rédange »	25	»	»	»	76 »
Wiltz »	15	»	»	»	37 »
Clervaux »	11	»	»	»	15 »
Vianden »	1	»	»	»	1 »
Total . . .	176	communes	infested	with	570 foci.

* Communication from the official correspondent of the Institute, Dr. Victor Ferrant, Chief of the Phytopathological Service, Luxemburg, Grand Duchy of Luxemburg.

Mozambique: Locust Movements *

No locusts were reported in the Province of Nyassa (Porto Amelia and Mozambique districts) during August 1938. On the 18th, however, a large swarm of red locusts (*Nomadacris septemfasciata*) from the uplands of 'Gorongóza' (Manica and Sofála territories) passed over the Barué district in the Tete region, Zambesi Province.

No locusts were observed in the Inhâmbane and Lourenço Marques districts, Sul do Save Province.

Hence as compared with July, the locust situation in the Colony may be considered unchanged. It is probable, however, that this will soon be altered, but only in the west central and northwestern areas, where further invasions are expected owing to the activity of *N. septemfasciata* in the neighbouring colonies on the west.

Southern Rhodesia: Locust Invasion, 1932-38 †

Monthly Report No. 70. September, 1938.

Numerous swarms of the red locust (*Nomadacris septemfasciata*, Serv.) have been reported during the month. Reports have been received from eleven districts in Mashonaland, namely:— Lomagundi, Melsetter, Inyanga, Rusapi, Sebungwe, Umtali, Bekita, Hartley, Gutu, Makoni and Chibi; and from five districts in Matabeleland, namely:— Gwelo, Bulalima-Mangwe, Bulawayo, Sebungwe and Matobo.

Many of the swarms have been described as large. There appears to be a general tendency for the swarms to move in a southerly direction. The Melsetter district has been invaded by many swarms from Portuguese East Africa. Some damage to winter crops and fruit trees have been notified.

The development of colour has passed the deepest red stage.

Italian Somaliland: Locusts §

No locusts were reported in the Colony in October and November, 1938.

* Communication from Mr. C. De Mello Vieira, Acting Chief of Agricultural Services, Section of Entomology, Lourenço Marques, Mozambique.

† Communication from Mr. J. K. Chorley, Acting Chief Entomologist, Agricultural Laboratory, Department of Agriculture, Salisbury, Southern Rhodesia.

§ Communication from Dr. Martino Vidotto, Acting Chief of the Agricultural Services of Italian Somaliland, Mogadiscio, transmitted to the Institute by the Government of the Colony.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Algeria. — A Decree of September 26, 1938 regulates the use of hydrocyanic acid gas for disinfecting plant products, growing plants and soils, and also greenhouses and warehouses where foods are handled or stored. (*Journal officiel de l'Algérie*, Alger, 7 octobre 1938, XII[e] année, nº 40, p. 1702-1704).

*** A Decree of the President of the French Republic, dated September 28, 1938, regulating the production, sale and transport of wheat seed in Algeria, provides, *inter alia*, that no dealer may transport, for purposes of sale, place on sale or sell as wheat seed any lots of grain containing weed seed and bunted wheat (*Tilletia tritici*). (*Ibid.*, 4 novembre 1938, nº 44 p. 1992-1993).

*** A Decree issued by the President of the French Republic, dated October 31, 1938, provides, *inter alia*, that the Government General of Algeria, if a species of wild animal is in danger of extinction, may prohibit not only the hunting of this animal, but also its destruction by a landowner or farmer, although compensation may be allowed to those landowners who produce evidence of the damage done by the animal to their crops.

The Governor General may approve the formation of departmental federations of hunting societies with the object of improving hunting in Algeria, especially by the preservation of game, the creation of reserves, breeding, general protection, the protection of birds useful to agriculture and the destruction of noxious animals. (*Bulletin de l'Office des Renseignements agricoles*, Paris, 15 novembre 1938, année 1938, nº 22, p. 583).

Germany. — By Decree dated September 24, 1938, the Ministry of Agriculture modified the Decrees dated October 20, 1937, January 19, March 5, May 6 and June 16, 1938 [see this *Bulletin*, 1938, No. 2, pp. 29-30; No. 6, p. 125; No 7, p. 149, and No. 9, pp. 193-194] and granted further facilities for the importation and transit of horticultural produce from France, Belgium, Luxemburg and Switzerland.

Chicory may enter the country during the period from October 15 to November 14, and celery stalks from September 10 to November 14. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. December 1938, Bd. X, Nr. 8, S. 220).

Angola. — The Minister for the Portuguese Colonies, by Decree No. 28:573 of April 7, 1938 has authorized the Governor General of Angola to include in the 1938 budget a special credit of 500,000 ' angulares ' for locust control in the Colony. (*Diário do Govêrno*, Lisboa, 7 de abril de 1938, I série, núm. 80, pág. [639]).

Argentine Republic. — Decree No. 115.421 of September 30, 1937 authorizes the application of the provisions of Decree No. 108.722 of June 21, 1937, relative to the establishment of a plant disinfection station at the port inspection bureau under the control of the Plant Protection Department of the Ministry of Agriculture. (*Boletín Oficial de la República Argentina*, Buenos Aires, 23 de agosto de 1938, año XLVI, núm. 13.223, pág. 10932).

*** Decree No. 11.358 of September 2, 1938 modifies Decree No. 83.732 of June 3, 1936 [see this *Bulletin*, 1936, No. 12, p. 265] relative to the import of plants, parts of plants and other plant products. (*Ibid.*, 7 de septiembre de 1938, núm. 13.235, pág. 11750).

*** Law No. 12.559 of September 30, 1938 authorizes the expenditure of 10 million 'pesos' for the control of locusts [*Schistocerca paranensis*] during the year 1938-39. (*Ibid.*, 17 de octubre de 1938, núm. 13.268, pág. 14072).

Australia (New South Wales) * — Ordinance No. 50, as made by Proclamation of August 31, 1938, published on September 2, 1938, prescribes methods of eradication of noxious plants in general and methods of eradication of *Erythroxylum coca*, *Papaver somniferum*, *Cannabis sativa*, *Homeria collina*, *Senecio jacobaea*, and *Ailanthus glandulosa*.

Three forms are appended to the said Ordinance.

*** By Proclamation of September 14, 1938, published on September 16, 1938, Ordinance No. 50 is amended in form 1.

France. — By Decree of October 11, 1938 the composition of the advisory Committee for plant protection has been changed. (*Journal officiel de la République française*, Paris, 15 octobre 1938, LXX[e] année, n° 242, p. 11999-12000).

Italy. — By two Ministerial Decrees of September 17, 1938, the application of the exchange duty at the reduced rate of 0.75 lire per cent. is extended from October 1, 1938 to the parasiticides sold in commerce as 'E. I. A.' ('Emulsione Italiana Antiparassitaria') and 'Solforamica S. P. A.' (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 8 ottobre 1938, anno 79°, n. 231, pp. 4242-4243).

*** A Ministerial Decree of September 20, 1938 lays down the regulations for the import of foreign potatoes intended solely for planting, for the 1938-39 season. (*Ibid.*, 27 settembre 1938, n. 221, p. 4055-4056).

* Communication from the Prime Minister's Department, Canberra, Australia, to the International Institute of Agriculture.

Libya. — By Decree dated January 31, 1938, issued by the Governor General of Libya, only expressly authorized firms and persons may plant nurseries and cultivate for sale or deal in plants, portions of plants and seeds for cultivation, including ornamental plants.

Permits to continue operating a nursery, to cultivate for sale or to sell plants portions of plants or seeds, or to perform such operations, will be granted by the Governor General of Libya on the recommendation of the Agricultural Office attached to the Prefecture of the area where the concern is situated. Where required this Office will make any inquiries necessary for purposes of control.

These permits may be discontinued at any moment for an indefinite period, or even revoked, should the periodic control visits of the above-mentioned Office reveal the presence of produce attacked by parasites or by dangerous and contagious diseases.

In case of infections declared as dangerous, the Office may order the disinfection of the produce at the expense of the interested party, according to the advice and in the presence of an expert attached to the said Office, or may order the partial or total destruction of the produce.

All nurserymen and traders in plants, parts of plants and seeds are required to declare to the Agricultural Office of their respective Prefecture, any dangerous and transmissible animal or plant parasites, found on their plants or produce. (*Agricoltura Libica*, Tripoli, dicembre 1938, anno VII, n. 12, pp. 565-567).

Mexico. — By ' Acuerdo ' of September 5, 1938, avocados grown in Sinaloa State may be transported to Sonora State and the Territory of Lower Cafornia if accompanied by a certificate testifying that these fruits are not attacked by the ' barrenador del hueso ' (*Heilipus lauri*) or by the fruit fly (*Anastrepha* sp.). (*Diario Oficial*, México, 26 de septiembre de 1938, tomo CX, núm. 21, pág. 2).

*** The ' Acuerdo ' of September 7, 1938 modifies the local quarantine regulation No. 1 relative to the control of the pink bollworm [*Platyedra gossypiella*] in regard to time of harvesting and the cleaning of cotton fields. (*Ibid.*, págs. [1] y 2).

Peru. — A Resolution of July 13, 1938 provides for the consideration of a plan for the control of grape phylloxera in the Departments of Moquegua and Tacna. (*El Peruano*, Lima, 6 de agosto de 1938, año 98, tomo II, trim. III, núm. 174, pág. 776).

Poland * — By Ministerial Decree, dated March 2, 1938, the voivodes are authorized to apply compulsory measures against the beet leaf bug (*Piesma quadrata*); to designate areas where destruction shall be compulsory and deter-

* Communication from the official correspondent of the Institute, Prof. Dr. Stanisław Minkiewicz, Chief of the Department of Entomology, Government Institute for Agricultural Research, Puławy, Poland.

mine the duration of, and methods to be adopted for the control measures; to request the collaboration of state officials, of the staff appointed by the Chamber of Agriculture and of the Agricultural Societies.

Tunisia. — By Decree of June 8, 1938, the proprietors of vineyards are formed into a compulsory association. This association is entitled the ' Syndicat général obligatoire des viticulteurs de Tunisie ' and is required, *inter alia*, under the control of the Administration:—

(1) To inspect vines, to ascertain the presence of grape phylloxera and, on request of the Administration, to control phylloxera and to apply suitable treatments against the various pests or diseases of the grape-vine;

(2) To assist in forming new plantations with American plants, by establishing fields of mother American plants, district and local nurseries for the production of rooted and grafted plants to replace vines destroyed or attacked by phylloxera, and experimental vineyards for determining the best vine stocks. (*Bulletin de la Direction des Affaires Economiques*, Tunis, 2e trimestre 1938, XLIIe année, nº 173, p. 146-150).

Yugoslavia. — Decree No. 40049-II, dated June 15, 1938, lays down the methods to be adopted in the campaign agains the San José scale (*Aspidiotus perniciosus*) in the territory administered by the City of Belgrade. (*Službene Novine*, Beograd, 21 juna 1938, godina XX, broj 136-XLI, str. 784-786).

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NOTES

Fourth Conference of the International Committee for the Mutual Study of the Control of the Colorado Beetle. — This Conference will meet on February 2, 3 and 4, 1939 at Wageningen, Netherlands.

Official Correspondents. — Dr. L. N. SETH, Mycologist, Department of Agriculture of Burma, at Mandalay, and Mr. L. J. S. LITTLEJOHN, Phytopathologist, Department of Agriculture of Cyprus, at Nicosia, have been appointed official correspondents to the International Institute of Agriculture on questions relating to plant protection in their countries.

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PRINTING OFFICE ' CARLO COLOMBO ' — ROME, JANUARY 16, 1939.

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